



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/553,898	10/21/2005	Shusaku Takagi	05702/HG	9904
1933 7590 12/27/2010 HOLTZ, HOLTZ, GOODMAN & CHICK PC 220 Fifth Avenue 16TH Floor NEW YORK, NY 10001-7708				
EXAMINER FOGARTY, CAITLIN ANNE				
ART UNIT		PAPER NUMBER		
1733				
MAIL DATE		DELIVERY MODE		
12/27/2010		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/553,898

**Applicant(s)**

TAKAGI ET AL.

**Examiner**

CAITLIN FOGARTY

**Art Unit**

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 October 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-942)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Status of Claims***

1. Claims 1 – 8 are pending where no claims have been amended.

***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Claim Rejections - 35 USC § 103***

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1 – 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2003/0047256 (hereinafter US '256).

US '256 is applied to claims 1 – 8 as set forth in the August 3, 2010 Office action since no claims have been amended.

***Response to Arguments***

5. Applicant's arguments filed October 18, 2010 have been fully considered but they are not persuasive.

*Arguments are summarized as follows:*

- a. According to the manufacturing method recited in applicants' claim 5, there is specified a step of annealing by heating a cold-rolled steel sheet to a temperature range covering from "[the coiling temperature + the cold-rolling reduction percentage x 4.5] (°C)" to "[the coiling temperature + the cold-rolling reduction percentage x 5.5] (°C)". This temperature a range is extremely narrow

and the manufacturing conditions of US '256 almost never satisfy the aforesaid temperature range. None of the steel sheets of US '256 manufactured by the aforesaid manufacturing condition has a microstructure containing 10% or larger area percentage of martensite as specified in claim 1.

b. It is absolutely not possible with the method disclosed in US '256 to obtain a high tensile cold-rolled steel sheet having a 0.85 to 1.5 of ratio of intervals of the martensite in the rolling direction to those in the sheet thickness direction, and having a nano strength of the martensite of 8 GPa or larger.

c. The enclosed Table shows US '256's steel sheet. Out of the entire 49 examples in the Table, there are no more than 10 examples which are within the annealing temperature range of applicants' claim 5. Furthermore, of these 10 examples, no steel sheet has a 10% or larger area percentage of martensite.

*Examiner's responses are as follows:*

a. As discussed in the previous Office Action, referred to in the above rejection, US '256 differs from instant claim 5 because it does not teach the formula of the annealing temperature range. However, the annealing temperature range of 700°C-900°C disclosed by US '256 overlaps with the specific examples of annealing temperature ranges recited in Table 2-2 of the instant application. Therefore, in the absence of factual evidence demonstrating the criticality of the claimed annealing temperature formula, US '256 teaches annealing temperatures that satisfy the formula recited in claim 5. Also, [0045] of US '256 teaches that the steel made by the method of US '256 has a martensitic

phase at the area ratio of 3% or more which overlaps with the instant claimed range. It is recommended that Applicant submit factual evidence and comparison data to demonstrate the criticality of the claimed formula for the annealing temperature range or factual evidence to demonstrate that the method of US '256 is not capable of obtaining a steel sheet with a microstructure containing 10% or larger area percentage of martensite as claimed.

b. In the absence of factual evidence to the contrary, the Examiner maintains the position that since the cold rolled sheet of US '256 has an overlapping composition with the composition recited in instant claim 1 and the steel sheet of US '256 is made using essentially the same process of the instant invention, one of ordinary skill in the art would have expected the steel sheet of US '256 to inherently have a similar ratio and nano strength of martensite. It is recommended that Applicant submit factual evidence to demonstrate that it is not possible to use the method of US '256 to obtain a steel sheet with the claimed ratio and nano strength of martensite.

c. The scope of the prior art of US '256 is not limited to the specific embodiments it teaches. See MPEP 2123. Rather, the Examiner relied on the broadest teaching of US '256 which discloses an annealing temperature that overlaps with the specific examples of annealing temperature ranges recited in Table 2-2 of the instant application and an overlapping area ratio of martensitic phase and thus a prima facie case of obviousness exists.

***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CAITLIN FOGARTY whose telephone number is (571)270-3589. The examiner can normally be reached on Monday - Friday 8:00 AM - 5:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ Roy King/  
Supervisory Patent Examiner, Art  
Unit 1733

CF